

## REMARKS

Interview request

Applicants respectfully request a telephonic interview after the Examiner has reviewed the instant response and amendment. Applicants request the Examiner call Applicants' representative at 858 720 5133.

Status of the Claims*Pending claims*

Claims 1 to 5, 16, 20 to 23, 40 to 55, 61 to 63, 65, 67, 68, 80 to 82, 88 to 92, 98 to 102, 107 to 111, 113 to 117, and 126 to 129 are pending. Claims 42 to 55, 61 to 63, 65, and 88 to 92 remain withdrawn as being drawn to a non-elected invention. Thus, claims 1 to 5, 16, 20 to 23, 40, 41, 67, 68, 77, 78, 80 to 82, 85, 97 to 102, 107 to 111, 113 to 117 and 126 to 129 are pending and under consideration.

*Claims added and deleted in the instant amendment*

Claims 3, 5, 16, 20, 23, 41 to 43, 82, 98 to 102, 107 to 111, 113 to 117 and 127 to 129 are canceled, without prejudice or disclaimer. New claims 130 to 134 are added. Thus, after entry of the instant amendment, claims 1, 4, 21, 22, 40, 67, 68, 80, 81, 98 to 102, 107 to 109, 126, 127, and 130 to 134, will be pending and under consideration (claims 42 to 55, 61 to 63, 65, 88 to 92, are pending, but withdrawn).

*Outstanding Rejections*

Claims 1 to 5, 16, 20, 21, 40, 41, 67, 68, 80 to 82, 98 to 102, 107 to 111 and 113 to 117 are rejected under 35 U.S.C. §112, second paragraph. The rejection of claims 1, 3 to 5, 16, 20 to 23, 40, 41, 67, 68, 80 to 82, 85, 98 to 102, 107 to 111, 113 to 117 and 126 is maintained, and claims 127 to 129 are newly rejected, under 35 U.S.C. §112, first paragraph, written description requirement. The rejection of claims 1, 3 to 5, 16, 20 to 23, 40, 41, 67, 68, 80 to 82, 98 to 102, 107 to 111, 113 to 117 and 126 is maintained under 35 U.S.C. §112, first paragraph, enablement requirement. The rejection of claims 3, 5, 40, 82, 98 to 102, 107 to 111, 114 to 117 and 126 is maintained, and claims 127 and 129 are newly rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Robertson et al., WO 97/30160.

Applicants respectfully traverse all outstanding objections to the specification and rejection of the claims.

*Rejoinder under In re Ochiai*

Applicants respectfully request that, after the elected product claims have been found to be allowable, all withdrawn process (methods) claims which depend from or otherwise include all of the limitations of the allowed product claims be rejoined. MPEP §821.04, §821.04(a), §821.04(b); pgs 800-64 to 800-71, 8th Edition, rev. 5, vol. 1, August 2006; In re Ochiai, 37 USPQ2d 1127 (Fed. Cir. 1995); In re Brouwer, 37 USPQ2d 1663 (Fed. Cir. 1995); 1184 OG 86, 3/26/96.

Withdrawn process (methods) claims that should be rejoined under In re Ochiai include claims 42 to 55 (methods for generating a variant using the allowed product), claims 61 to 63 (methods for comparing and sequence and methods for identifying a feature using the allowed product), claim 65 (method of catalyzing the hydrolysis of esters using the allowed product), and claims 88 to 92 (method of modifying small molecules using the allowed product).

Support for the Claim Amendments

The specification sets forth an extensive description of the invention in the amended claims. For example, support for isolated, synthetic or recombinant nucleic acids of the invention having various sequence identities to exemplary polynucleotide sequences of the invention, or encoding polypeptides having various sequence identities to exemplary polypeptides of the invention, can be found, inter alia, in paragraphs [0224] and [0225] of U.S. Patent Application Publication no. 20020146799 ('the '799 publication'). Accordingly, no new matter is added by the instant amendment.

Priority and objections under 35 USC §132(a)

To perfect this application's priority claim and address the objections set forth in the OA on page 3, lines 9 to 19, in the instant amendment Applicants have deleted their claim to priority to PCT/US97/02039, filed February 11, 1997; and have filed a supplemental ADS (Application Data Sheet) reflecting this change.

Claim objections

The Office objected to claim 4 for reasons set forth in lines 20 to 23, page 3 of the OA. The instant amendment addresses this objection.

Issues Under 35 U.S.C. § 112, Second Paragraph

Claims 1 to 5, 16, 20, 21, 40, 41, 67, 68, 80 to 82, 98 to 102, 107 to 111 and 113 to 117 are rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite for reasons as set forth in the OA on page 4, line 1 to 16, of the OA. The instant amendment addresses these issues.

Issues Under 35 U.S.C. § 112, First Paragraph - Written Description*Possession of the Claimed Invention*

The rejection of claims 1, 3 to 5, 16, 20 to 23, 40, 41, 67, 68, 80 to 82, 85, 98 to 102, 107 to 111, 113 to 117 and 126 is maintained, and claims 127 to 129 are newly rejected, under 35 U.S.C. §112, first paragraph, written description requirement, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors at the time the application was filed had possession of the claimed invention, for reasons set forth on page 4, line 17, to page 7, line 13, of the OA.

Applicants respectfully maintain that the specification did reasonably convey to one skilled in the art that the inventors at the time the application was filed had possession of the claimed invention for reasons set forth in previous responses, e.g., of July 19, 2006, March 24, 2006; November 03, 2005; May 17, 2004; and, November 21, 2003; all expressly incorporated herein.

However, because the Office's primary concern is the size of the genus of claimed nucleic acids – which for example pending claim 1 encompasses sequences having at least 90% sequence identity to SEQ ID NO:26 – to expedite prosecution of this application and address the Office's concerns, Applicants have amended the pending claim set by, inter alia, reducing the size of the claimed genus to sequences having at least 95% sequence identity to SEQ ID NO:26, and canceling claims. Accordingly, Applicants respectfully submit that in light of these remarks and the instant amendment the §112, first paragraph, written description requirement rejection can be properly withdrawn.

Issues under 35 U.S.C. § 112, First Paragraph - Enablement

The rejection of claims 1, 3 to 5, 16, 20 to 23, 40, 41, 67, 68, 80 to 82, 98 to 102, 107 to 111, 113 to 117 and 126 is maintained under 35 U.S.C. §112, first paragraph, enablement requirement, as allegedly failing to comply with the enablement requirement, for reasons set forth on page 7, line 14, to page 12, line 12, of the OA.

The Office does note that the specification is enabling for polynucleotides encoding SEQ ID NO:36 (see e.g., page 7, lines 16 to 17, of the OA).

Applicants respectfully maintain that the specification did reasonably enable the claimed invention to one skilled in the art at the time the application was filed for reasons set forth in previous responses, e.g., of July 19, 2006, March 24, 2006; November 03, 2005; May 17, 2004; and, November 21, 2003, including Dr. Jay Short's expert declaration; all expressly incorporated herein.

However, because the Office's primary concern is the size of the genus of claimed nucleic acids – which for example pending claim 1 encompasses sequences having at least 90% sequence identity to SEQ ID NO:26 – to expedite prosecution of this application and to address the Office's concerns, Applicants have amended the pending claim set by, inter alia, reducing the size of the claimed genus to sequences having at least 95% sequence identity to SEQ ID NO:26, and canceling claims. Accordingly, Applicants respectfully submit that in light of these remarks and the instant amendment the §112, first paragraph, enablement requirement rejection can be properly withdrawn.

Issues Under 35 U.S.C. § 102 (b)

The rejection of claims 3, 5, 40, 82, 98 to 102, 107 to 111, 114 to 117 and 126 is maintained, and claims 127 and 129 are newly rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Robertson et al., WO 97/30160.

The instant amendment addresses this issue; claims 3, 5, 40, 82, 98 to 102, 107 to 111, 114 to 117 and 126 is maintained, and claims 127 and 129 are canceled, without prejudice or disclaimer, or amended appropriately.

CONCLUSION

In view of the foregoing amendment and remarks, Applicants respectfully aver that the Examiner can properly withdraw the rejection of the claims under 35 U.S.C. §112, first and second paragraphs, and the rejection under 35 U.S.C. §102(b).

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 564462000820.

As noted above, Applicants have requested a telephone conference with the undersigned representative to expedite prosecution of this application. After the Examiner has reviewed the instant response and amendment, please telephone the undersigned at 858 720 5133.

Dated: April 25, 2007

Respectfully submitted,

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